

REMARKS

Claim 23 has been canceled, claims 24-26 have been added, and claims 1, 3, 4, 8, 10, 11 and 14-22 have been amended. Claims 1-22 and 24-26 are pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Provisional Double-Patenting Rejection:

The Office Action provisionally rejected claims 1-5, 7-12 and 14-20 on the ground of nonstatutory obviousness-type double patenting over claims of copending application Serial No. 10/723,729. Applicants submit that amendments made in the instant and referenced applications render this rejection moot and respectfully request that the Examiner reevaluate the claims in both applications in view of these amendments.

Section 101 Rejections:

The Office Action rejected claims 15-20 under 35 U.S.C. § 101 as being directed to non-statutory subject matter for failing to limit the recited “computer-accessible medium” to tangible media. As suggested by the Examiner, Applicants have amended claims 15-20 to recite the referenced medium as a tangible, computer-accessible storage medium. Applicants submit that in view of this amendment, the rejection has been overcome and respectfully request that it be withdrawn.

Section 102(e) and 103(a) Rejections:

The Office Action rejected claims 21-23 under 35 U.S.C. § 102(e) as being anticipated by Santry et al. (“Deciding when to forget in the Elephant file system”) (hereinafter, “Santry”), claims 1-6, 8-13 and 15-19 under 35 U.S.C. § 103(a) as being unpatentable over Richard et al. (U.S. Patent Application Publication No. 2005/0015461) (hereinafter, “Richard”) in view of Vogels (“File system usage in Windows NT 4.0”)

(hereinafter, “Vogels”), and claims 7, 14 and 20 as being unpatentable over Richard and Vogels in view of Reynolds et al. (U.S. Patent No. 6,286,013) (hereinafter, “Reynolds”). Although Applicants traverse these rejections, in order to expedite issuance of a patent, Applicants have amended independent claims 1, 8, 15 and 21 to further clarify distinctive features of Applicants’ claims. Applicants submit that the pending claims are distinguishable over the cited references for at least the following reasons.

Regarding amended claim 1, none of the cited references teach or suggest, individually or in any combination, a file system that is configured to map a plurality of files and a plurality of named streams corresponding respectively to the files for storage to a storage device, to detect an operation to modify an identity of a first file, and to responsively store a record of the operation within a respective named stream corresponding to the first file, where the record includes a signature corresponding to the first file, as required by claim 1.

Neither Richard nor Vogels teaches or suggests that captured file access records are stored in respective named streams corresponding to files. At paragraphs 0094-0098, Richard specifically describes two data structures configured to store records corresponding to files: the “state.xml” file and the “journal.xml” file. Richard discloses that “State.xml contains a list of every file currently stored in the local shared directory” (paragraph 0094, emphasis added) and that “[t]he Journal file 106... contains the version of every file ever known by this local computer [on which the file resides]” (paragraph 0098, emphasis added). In other words, Richard’s record data is stored collectively, rather than in respective named streams corresponding to files to which the record data pertains. The remaining cited references also fail to teach or suggest storing a record of an operation to modify the identity of a file in the manner required by claim 1.

Similar arguments apply to independent claims 8 and 15, which recite limitations similar to claim 1. Therefore Applicants submit that claims 1, 8, and 15 are distinguishable over the cited references, as are the claims depending from these claims.

Regarding independent claim 21, none of the cited references teach or suggest, individually or in any combination, a file system that is configured to map a plurality of files and a plurality of named streams corresponding respectively to the files to a storage device for storage, wherein the named streams are configured to store metadata corresponding respectively to said files, and wherein the file system is further configured to detect an identity-modifying file operation specifying one or more source ones of said plurality of files and a destination one of said plurality of files, and in response to detecting the identity-modifying file operation, store a record of said identity-modifying file operation within said respective named stream corresponding to said destination file and for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file.

Santry does not disclose any aspect of preserving metadata records of previously-detected operations on source files. Santry notes that “[r]enaming a file... changes its name but not its inode,” (p. 114, first column, last paragraph), thus failing to record any history whatsoever of the identity change operation. That is, the file identity is simply changed within the inode without a record of the prior name or other identity information. Santry provides a completely different mechanism than that recited in claim 21 to provide “namespace journaling,” specifically “name logs” associated with directories, not named streams respectively associated with individual files. (p. 114, second column, first partial paragraph)

The remaining cited references also fail to teach or suggest the limitations of claim 21. Vogels is completely silent as to recordkeeping associated with identity-modifying file operations. Richard discloses that “[r]enaming of files... can be detected as a delete/create combination.” (paragraph 0097) However, as shown in the journal file example of paragraph 0098, Richard processes a delete operation by storing a null hash value for the deleted file. Richard does not describe any aspect whatsoever of associating the records of the deleted file with any other file. Thus, in Richard, the explicit history of

operations on a file is lost when the file is renamed, not preserved within a named stream associated with the destination file as required by claim 21. Reynolds is directed to management of long and short filenames within a file system and bears no relation to the recited features of claim 21. For at least the foregoing reasons, Applicants submit that independent claim 21 is patentably distinguishable.

Applicants further note that numerous ones of the dependent claims recite additional distinctions over the cited references. However, as the independent claims have been shown to be distinguishable, further discussion of the dependent claims is unnecessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicant hereby petitions for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-16300/BNK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☒ Petition for Extension of Time
- ☐ Request for Approval of Drawing Changes
- ☐ Notice of Change of Address
- ☐ Marked-up Copy of Amended Claims
- ☐ Marked-up Copy of Amended Paragraphs
- ☐ Fee Authorization Form authorizing a deposit account debit in the amount of \$
for fees ().
- ☐ Other:

Respectfully submitted,



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